

15 April 1954

TO: Assistant Director, Office of Research and Reports

SUBJECT: Management Staff Project No. 4-100, "Review and Simplification of the ORR Time Distribution System, Economic Area"

1. PROBLEM:

- a. To review the present ORR Time Distribution System for the Economic Area, utilizing ORR studies, recommendations and comments made on this system now being employed; and develop a Project Control System which will provide a uniform and defined flow of time and progress information from appropriate levels in the organization to the Project Control Staff.
- b. The system developed should provide for the maintenance of project workload records at the point in the organization where the records can best serve to support supervisory decisions. *ch/E & sr/PC*
- c. The information gathered through the system developed should provide experience data regarding times expended on projects, programs, consumers, etc., for use in future research programming, budgeting and planning, and assessment of research time provided in support of major requesters.

2. ASSUMPTIONS:

- a. The use of the term "Project" in this study denotes a unit of workload that will be assigned a control number for purposes of accountability of work time expended in accomplishing the workload and accountability of work progress information required for control purposes. These units of controlled workload may in themselves be complete major projects, segments of a major project, consumer requests, program work assignments, etc.
- b. The present ORR regulatory directives regarding the approval of projects have not been considered in the solution of this problem in that the problem is the development of a system of time and progress control of major projects and workload after they have been initiated not prior to their initiation.

3. FACTS BEARING ON THE PROBLEM:

- a. The divisions of ORR under the Chief, Economic Research have been preparing and submitting reports of Time Distribution by analysts since 5 January 1953. These reports individually prepared by each analyst are summarized to show aggregate distribution of analyst time by project number and categories of time expenditure. Data gleaned from these reports is intended to provide a substantive record on which budgetary justification can be made.

regarding demands on analyst's time by various categories of tasks; and to improve the collective ability to estimate time requirements when projects are proposed.

- b. A study of the ORR Time Distribution System made as of 25 November 1953 by ORR personnel cited many deficiencies in this system. A few of these deficiencies are cited here in that the recognition of their existence justifies the need for this review and recommended corrective action.
  - (1) The present time distribution system, as provided under ORR Notices R52-68, R67-53, and R43-53 does not provide all the kinds of information now deemed desirable.
  - (2) The use of man-hours by the Project Control Staff to determine the amount of completion of a given project is misleading and burdensome.
  - (3) The time distribution system varies in local use and interpretation with the nature of the division research as well as individuals.
  - (4) The value of the present time distribution system has resulted mainly in the compilation of statistical experience information which can be employed to assist in the determination of estimated completion dates for future projects when planning divisional research programs. This information to be readily used has to be reworked and analyzed in terms of the variables and unknowns presently inherent in the system.
  - (5) Present reporting has been found to be lacking in accuracy and result in statistical inaccuracies. The actual existent errors cannot be readily determined.
  - (6) The utilization of resultant reports of the time distribution system has been sporadic and has not served all the purposes for which it was designed.
  - (7) Present reporting requirements are time consuming and the value of the results is questionable in light of the cost in terms of time and effort.
- c. Economic Area division and branch chiefs have from time to time in the past expressed comments and suggestions regarding the present Time Distribution System. The consensus is that time reports should be continued and should be used as an aid for more effective planning and control. A review and general discussion of some of these comments is offered as supplementary data (ANNEX 2) for use in on-site development and installation introduction material.
- d. DISCUSSION:
  - a. As previously cited the present Time Distribution System of monthly reports have been in effect for the past fifteen months. These reports have been supplemented with man-hour estimates required for the completion of each project together with monthly statements of

the number of man-hours spent on a given project. This information is supplied to the Project Control Staff for their use in over-all control requirements. A project control chart is also maintained here which reflects these estimated project man-hours (by percentage of time completion.) *Now, by actual hours spent.*

- b. Experience over the past fifteen months has shown that the centralization of these control facts is desirable, however many deficiencies became apparent due to the lack of procedural instructions and variety of reporting interpretations at the working levels. The resultant statistical information compiled, in theory was worthwhile, but in fact was unreliable.

5. CONCLUSIONS:

- a. The working experience gained under the present reporting system has reached the stage where a simplified reporting system is desirable, one which retains the advantages of the old, supplements for its deficiencies, and corrects its errors.

6. ACTION RECOMMENDED:

- a. Proposed Project Control System

(1) General

- (a) Taking full license with findings, comments, and recommendations made in studies available in ORR, as well as comments and recommendations made by Economic Area Division and Branch Chiefs, the proposed type of Project Control System (ANNEX 1) is submitted for consideration. This system incorporates all feasible on-site recommendations received to date and is presented in concept as a system guide. No attempt at this time has been made to assure its completeness in every detail as to use and content, detailed definitions, etc.; rather it is offered as a "first draft" outline which may be further refined to include all desired information, etc. before installation. The primary purpose of this proposed type of system is to provide a means of accounting for the amounts of time expended in servicing the consumers of Economic Area research effort, as well as to provide ready information regarding the status of current workload, amount of workload in process, amount of backlog in terms of type, quantity and time requirements. The diversification of mission and function between organization components as well as individuals is recognized and it is not intended that comparisons of efficiency based on time reports be made area-wide. However, it is felt that valuable experience factors can be gained for internal use within divisions and branches to aid in local projects of future requirements, scheduling, assignments, etc. Likewise, overall experience factors will be gained for management's use in master programming of research and budget and planning.

- (b) It is recommended that the Time Distribution system currently being employed in the ORR, Economic Area, be discontinued and that the proposed type of Project Control System be adopted and phased in after detailed development and coordination with all division and branch chiefs. It is further suggested that the Project Control Staff be directed to "spearhead" the procedural development, coordination, installation, and maintenance of this new system. The Management Staff is available to assist, advise and counsel in the development and installation as required.
- (c) The proposed Project Control System is one which is designed to provide all Economic Area organizational components from analyst to AD with the information required for their respective needs both operational and supervisory regarding project time and/or control data. Divisions, through its use, will be able to furnish program data to the AD, build experience factors in research and to maintain adequate supervisory control on the manner in which time is expended by analysts within each branch; the status of any project will be available in virtually a matter of seconds; and project target completion dates will be automatically refined and will reflect the latest conditions. Experience factors derived over a period of time will reflect in more efficient as well as effective planning and scheduling in future programming and project forecasting.
- (d) The adoption of the proposed type of system eliminates detailed accounting on an individual basis, hence the individual analyst will have more productive time available for professional research. Accounting of other than research time is felt to be the responsibility of supervision inasmuch as these type of time expenditures, leave, training, conferences, etc., are in the main a matter of official record. That expenditure of time in these categories that is not known at the supervisory level then becomes a matter of local administrative procedure to obtain and record. The proposed system affords through the "Time Charge Report" a method of accounting for these gaps in known time expenditures.

b. Division of Time by Broad Categories

- (1) It is recommended that overall accounting of total time be recorded and maintained at supervisory levels and should be confined to as few broad categories as possible. This accounting should be couched in such terms as to satisfy program needs. Any trend towards infinite detail should be discouraged.
- (2) The establishment of the proposed type of project control system would provide a means of accounting for the bulk of present time expenditure, that time expended in the "Research" function, and could be expanded to include support time expended on projects, programs, etc., as well. These time factors together with other known time elements maintained would result in time distribution factors for top-management programming, budget and planning, etc.

(3) An example of this concept is as follows:

|  |             |
|--|-------------|
| (a) Total available Time (including overtime)            | XXXX        |
| (b) Research Time  | XXXX        |
| (c) Leave Time   | XXXX        |
| (d) Training Time  | XXXX        |
| (e) Conference and consultation time                     | XXXX        |
| (f) Administration Time                                  | XXXX        |
| (g) Total (b through f)                                  | <u>XXXX</u> |
| (h) Balance-Intelligence Maintenance Time<br>(a minus g) | XXXX        |

(h) In this example these categories of time represent a complete range of "times" that might be accounted for. Total Available Time is a known quantity along with Leave Time, taken from time and attendance records. Likewise Training Time, Administration Time and Conference and Consultation Time are known if local records are maintained to account for them. The Time Charge Report of the proposed system affords a means of accounting for all types of support time and coupled with time apportioned by management by assignment, etc., it is possible to maintain time distribution data at supervisory levels without burdening all line individuals with detailed reporting as in the present system of time distribution accounting.

#### 7. ACKNOWLEDGMENT:

The assistance and cooperation of personnel at all levels in ORR is acknowledged with appreciation. These factors substantially facilitated the timely completion of this report and in its present form.

/s/

Chief, Management Staff

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#### ANNEXES:

- Annex 1 - Proposed Type of Project Control Procedure
- Annex 2 - Economic Area Comments on Present System of Time Distribution